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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/736,647	SHIN, AKIHIRO	
	Examiner	Art Unit	
	JASON K. LIN	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 December 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-10,12-18,22 and 23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-10,12-18,22 and 23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is responsive to application No. 10/736,647 filed on 12/28/2007. **Claims 3, 11, 19-21** have been cancelled and **Claims 1-2, 4-10, 12-18, and 22-23** are pending and have been examined.

Claim Objections

1. **Claim 1** is objected to because of the following informalities: "a transceiver, connected to **said default server**, for communicating with at least one of said television broadcast content distributing servers". There is no prior mention of a **default server** in Claim 1. Please change to -- a transceiver, connected to **a default server**, for communicating with at least one of said television broadcast content distributing servers -- or -- a transceiver, connected to **said television broadcast content distributing servers**, for communicating with at least one of said television broadcast content distributing servers --. Appropriate correction is required.

2. **Claim 10** is objected to because of the following informalities: "on a compressed-data basis, and time-expands **the cyclically** received television broadcast contents…". There is no prior mention of **cyclically** received contents in Claim 10 or in Claim 2 from which it depends. Please change to -- on a compressed-data basis, and time-expands **cyclically** received television broadcast contents… -- or -- on a compressed-data basis, and time-expands **the time-divisionally** received television broadcast contents…--. Appropriate correction is required.

Response to Arguments

3. Applicant's arguments with respect to **claims 1-2, 4-10, 12-18, and 22-23** have been considered but are moot in view of the new ground(s) of rejection. However, a response to some of applicant's arguments are deemed necessary.

On P. 13: lines 1-9, the applicant asserts that "... Johansson teaches a control section that receives a channel switching request signal from a content receiving terminal, whereby reconfiguration of a VLAN allocation is performed to a user based on the type of server specified by the user. While this statement may be true on its face, Johansson does not teach or suggest that referral is made to a menu of television broadcast contents generated by a default server in order to effect a channel switch. Rather, it appears that a network operator sets and resets his or her switches via his or her terminal, as described in column 4, lines 47-50 of Johansson, whereby no menu of television broadcast contents as provided by a default server is utilized in the system of Johansson." The examiner respectfully disagrees. As the applicant has stated that the statement "Johansson teaches a control section that receives a channel switching request signal from a content receiving terminal" may be true. This is exactly the case for which Johansson was brought in to teach. The allocation of virtual local area networks by referring to said menu of said television broadcast contents generated from said default server has already been taught by Kasal. Although Kasal teaches allocation of virtual LANs in Paragraph 0032 and implies users being able to request content and have it delivered to the user's content terminal in Paragraph 0050, it is silent upon what type of request is sent by the user's content terminal, which is

specifically a "channel switching request signal". That is exactly what Johansson was brought in to teach and even though applicant's assertions of Johansson not teaching limitations regarding the menu, Johansson does not need to explicitly teach limitations which has already taught by Kasal. Furthermore, the network operator is able to set and reset switches via his/her terminal, but the system of Johansson explicitly states reconfiguration of the VLAN terminals can be performed manually or dynamically as taught in Col 7: lines 24-25.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claims 1, 2, 17, 22, and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasal et al. (US 2003/0009542), in view of Medina et al. (US 6,975,581), and further in view of Dravida et al. (US 7,146,630).

Consider **claim 1,** Kasal teaches television broadcast content distributing system (Fig.1) comprising:

a plurality of television broadcast content distributing servers for generating television broadcast contents (server farm 132 – Fig.1; Paragraph 0036-0037);

a plurality of television broadcast content receiving terminals for receiving said television broadcast contents (set top boxes 110 – Fig.1, television set 115 – Fig.1; Paragraph 0037);

a first channel allocating switch (core switch 124 – Fig.1), connected to said television broadcast content distributing servers, for allocating channels to said television broadcast content distributing servers (Paragraph 0032, 0035), respectively;

a plurality of second channel allocating switches (Edge switches 122 – Fig.1), each connected to one or more of said television broadcast content receiving terminals, said each of said second allocating channel switches allocating one or more of said channels to said one or more of said television broadcast content receiving terminals (Fig.1; Paragraph 0032, 0037, 0042); and

a plurality of virtual local area networks, each arranged in correspondence with one of said channels between outputs of said first channel allocating switch and inputs of said second channel allocating switches (Fig.1; Paragraph 0032).

wherein each of said second channel allocating switches (Edge switches 122 – Fig.1) comprises:

a switch section (Paragraph 0031 teaches edge switches 122 – Fig.1 that switch packets and provide media streams to receiving terminals, therefore it inherently has a switch section to perform these tasks), provided between said virtual local area networks and one or more of said television broadcast content receiving terminals (Fig.1, Paragraph 0031 teaches edge switches 122 – Fig.1, in

between core switch 124 – Fig.1 and receiving terminals. Paragraph 0032 teaches virtual LANs allocated in network 120, which also resides in between core switch and edge switch);

Kasal does not explicitly teach, a control section;

a correspondence storing section, connected to said control section, for storing a correspondence table between physical addresses of said television broadcast content receiving terminals connected to said each of said second channel allocating switches and selected ones of said virtual local area networks;

a switch section, connected to said control section.

a transceiver, connected to said default server, for communicating with at least one of said television broadcast content distributing servers.

In an analogous art Medina teaches, a control section (Col 4: lines 48-51; Col 1: lines 29-31 teaches a switch determining how, when and through which port packets are retransmitted, therefore it is inherent it has a control section in order to perform these tasks);

a correspondence storing section (Global Address Table 12 – Fig.2, 4), connected to said control section, for storing a correspondence table between physical addresses of content receiving terminals connected to said each of channel allocating switches and selected ones of virtual local area networks (Col 1: lines 61-64 teaches each switch contains a global address table 12 – Fig.2, 4, that lists each MAC address and its associated VLAN that it belongs to); and

a switch section, connected to said control section (Col 2: lines 33-35, 41-45 teaches searching for the destination MAC address with the VLAN id in global address table 12 – Fig.2, 4, and forwarding it to the correct port if found in the address table, therefore the control section is connected to the switch section).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify Kasal's system to include a control section; a correspondence storing section, connected to said control section, for storing a correspondence table between physical addresses of content receiving terminals connected to said each of channel allocating switches and selected ones of virtual local area networks; and a switch section, connected to said control section, as taught by Medina, for the advantage of quickly and easily identifying the destination of content and forwarding content to the intended recipient with minimal delay.

Kasal and Medina do not explicitly teach a transceiver, connected to said default server, for communicating with at least one of said television broadcast content distributing servers.

In an analogous art Dravida teaches, a transceiver (transmitter/receiver 604 – Fig.10), connected to said default server, for communicating with at least one of said television broadcast content distributing servers (Fig.3, Col 4: lines 6-20, Col 6: lines 33-42, Col 10: lines 15-31, 44-55 teaches a network element the NIU 119 - Fig.3 that passes downstream and upstream traffic. The NIU contains a switch 608-Fig.10 and a transmitter/receiver 604-Fig.10 {transceiver}. It is also connected to default video server 138-Fig.3 and headend 10-Fig.3).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal and Medina to include a transceiver, connected to said default server, for communicating with at least one of said television broadcast content distributing servers, as taught by Dravida, for the advantage of providing two way communication between devices via a single network element, allowing for greater control and troubleshooting.

Consider **claim 2,** Kasal teaches a television broadcast content distributing system (Fig.1) comprising:

a plurality of television broadcast content distributing servers for generating television broadcast contents (server farm 132 – Fig.1; Paragraph 0036-0037);

a default server for generating a menu of said television broadcast contents (database server within the server farm 132 – Fig.1; Paragraph 0039, 0070);

a plurality of television broadcast content receiving terminals for receiving said television broadcast contents and said menu of said television broadcast contents (set top boxes 110 – Fig.1, television set 115 – Fig.1; Paragraph 0037);

a first channel allocating switch (core switch 124 – Fig.1), connected to said television broadcast content distributing servers and said default server, for allocating channels to said television broadcast content distributing servers and said default server (Paragraph 0032, 0035), respectively;

a plurality of second channel allocating switches (Edge switches 122 – Fig.1), each connected to one or more of said television broadcast content receiving terminals, said each of said second allocating channel switches allocating one or more of said channels to said one or more of said television broadcast content receiving terminals (Fig.1; Paragraph 0032, 0037, 0042); and

a plurality of virtual local area networks , each arranged in correspondence with one of said channels between outputs of said first channel allocating switch and inputs of said second channel allocating switches (Fig.1; Paragraph 0032).

wherein each of said second channel allocating switches (Edge switches 122 – Fig.1) comprises:

a switch section (Paragraph 0031 teaches edge switches 122 – Fig.1 that switch packets and provide media streams to receiving terminals, therefore it inherently has a switch section to perform these tasks), provided between said virtual local area networks and one or more of said television broadcast content receiving terminals (Fig.1, Paragraph 0031 teaches edge switches 122 – Fig.1, in between core switch 124 – Fig.1 and receiving terminals. Paragraph 0032 teaches virtual LANs allocated in network 120, which also resides in between core switch and edge switch);

Kasal does not explicitly teach, a control section;

a correspondence storing section, connected to said control section, for storing a correspondence table between physical addresses of said television

broadcast content receiving terminals connected to said each of said second channel allocating switches and selected ones of said virtual local area networks;

a switch section, connected to said control section.

a transceiver, connected to said default server, for communicating with at least one of said default server.

In an analogous art Medina teaches, a control section (Col 4: lines 48-51; Col 1: lines 29-31 teaches a switch determining how, when and through which port packets are retransmitted, therefore it is inherent it has a control section in order to perform these tasks);

a correspondence storing section (Global Address Table 12 – Fig.2, 4), connected to said control section, for storing a correspondence table between physical addresses of content receiving terminals connected to said each of channel allocating switches and selected ones of virtual local area networks (Col 1: lines 61-64 teaches each switch contains a global address table 12 – Fig.2, 4, that lists each MAC address and its associated VLAN that it belongs to); and

a switch section, connected to said control section (Col 2: lines 33-35, 41-45 teaches searching for the destination MAC address with the VLAN id in global address table 12 – Fig.2, 4, and forwarding it to the correct port if found in the address table, therefore the control section is connected to the switch section).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify Kasal's system to include a control section; a correspondence

storing section, connected to said control section, for storing a correspondence table between physical addresses of content receiving terminals connected to said each of channel allocating switches and selected ones of virtual local area networks; and a switch section, connected to said control section, as taught by Medina, for the advantage of quickly and easily identifying the destination of content and forwarding content to the intended recipient with minimal delay.

Kasal and Medina do not explicitly teach a transceiver, connected to said default server, for communicating with at least one of said television broadcast content distributing servers.

In an analogous art Dravida teaches, a transceiver (transmitter/receiver 604 – Fig.10), connected to said default server, for communicating with at least one of said default server (Fig.3, Col 4: lines 6-20, Col 6: lines 33-42, Col 10: lines 15-31, 44-55 teaches a network element the NIU 119 - Fig.3 that passes downstream and upstream traffic. The NIU contains a switch 608-Fig.10 and a transmitter/receiver 604-Fig.10 {transceiver}. It is also connected to default video server 138-Fig.3 and headend 10-Fig.3).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal and Medina to include a transceiver, connected to said default server, for communicating with at least one of said default server, as taught by Dravida, for the advantage of providing two way communication between devices via a single network element, allowing for greater control and troubleshooting.

Consider **claim 17,** Kasal, Medina, and Dravida teach an Internet protocol router connected to said first channel allocating switch (Kasal - router 134 – Fig.1; Paragraph 0034); and

an additional virtual local area network arranged in correspondence with a channel for said Internet protocol router between an output of said first channel allocating switch and the outputs of said second channel allocating switches (Kasal - Paragraph 0032, 0034).

Consider **claims 22 and 23,** Kasal, Medina, and Dravida teach wherein at least one of the plurality of television broadcast content receiving terminals includes a premise terminal (Kasal - 110-Fig.1) and a personal computer (Kasal - 110-Fig.1; Paragraph 0065, 0067), and wherein a user of the premise terminal is capable of viewing one of the television broadcast contents provided on one of said channels by way of one of the virtual local area networks and a user of the personal computer can view another of the television broadcast contents provided on another of said channels by way of another of the virtual local area networks (Kasal - Paragraph 0032, 0037, 0042), both the one and the another of the virtual local area networks being switched to the one of the plurality of television broadcast content receiving terminals by a corresponding one of the second channel allocating switches (Edge switches 122 – Fig.1; Paragraph 0032, 0037, 0042)

4. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kasal et al. (US 2003/0009542), in view of Medina et al. (US 6,975,581), in view of Dravida et al. (US 7,146,630), in view of Suzuki et al. (US 5,892,912), and further in view of Ekstrom (WO 98/44684).

Consider **claim 4**, Kasal, Medina, and Dravida teach, wherein said correspondence storing section comprises a memory (Medina - Col 4: lines 57-60, Col 5: lines 44-46 teaches address table 12 – Fig.1, 4 is implemented as a hash table that is typically implemented in DRAM),

television broadcast content receiving terminals (Kasal - 110, 115 – Fig.1) and allocating one of said virtual local area networks by referring to said correspondence storing section using a physical address of said one of said television broadcast content receiving terminals (Kasal – Paragraph 0032; set top boxes 110 – Fig.1, television set 115 – Fig.1; Paragraph 0037; Medina - Col 2: lines 33-35, 41-45 teaches searching for the destination MAC address with the VLAN id in global address table 12 – Fig.2, 4, and forwarding it to the correct port if found in the address table containing the physical address of the content receiving device),

Kasal, Medina, and Dravida do not explicitly teach the memory is non-volatile memory;

said control section receiving a power-on signal from one of said television broadcast content receiving terminals.

In an analogous art Suzuki teaches, the memory is non-volatile memory (Col 6: line 67 – Col 7: lines 9 teaches MAC addresses of all nodes associated with VLANs are stored in nonvolatile memory);

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, and Dravida to include non-volatile memory, as taught by Suzuki, for the advantage of storing data permanently so data will not be lost when power is or cannot be supplied.

Kasal, Medina, Dravida, and Suziki do not explicitly teach said control section receiving a power-on signal from one of said television broadcast content receiving terminals.

In analogous art, Ekstrom teaches a control section receiving a power-on signal from one of content receiving terminals (Abstract; P.8: lines 26-31, P.9: lines 1-13).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, Dravida, and Suzuki to include a control section receiving a power-on signal from one of content receiving terminals, as taught by Ekstrom, for the advantage of automatically notifying the switch of an active device, in order for it to immediately register the user device into the network for use.

5. **Claim 12** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kasal et al. (US 2003/0009542), in view of Medina et al. (US 6,975,581), in view of Dravida et al. (US 7,146,630), in view of Suzuki et al. (US 5,892,912), in view of Ekstrom (WO 98/44684), and furtherin view of Johansson et al. (US 6,873,624).

Consider **claim 12**, Kasal, Medina, and Dravida teach, wherein said correspondence storing section comprises a memory (Medina - Col 4: lines 57-60, Col 5: lines 44-46 teaches address table 12 – Fig.1, 4 is implemented as a hash table that is typically implemented in DRAM),

television broadcast content receiving terminals (Kasal - 110, 115 – Fig.1) and allocating one of said virtual local area networks by referring to said correspondence storing section using a physical address of said one of said television broadcast content receiving terminals (Kasal – Paragraph 0032; set top boxes 110 – Fig.1, television set 115 – Fig.1; Paragraph 0037; Medina - Col 2: lines 33-35, 41-45 teaches searching for the destination MAC address with the VLAN id in global address table 12 – Fig.2, 4, and forwarding it to the correct port if found in the address table containing the physical address of the content receiving device),

wherein, when a channel is selected by a user by operation of an input device on one of the television broadcast content receiving terminal (Kasal – Paragraph 0032, 0039, 0050, 0070, 0073), said control section of one of said second channel allocating switches that is communicatively connected to said one of said television broadcast content receiving terminals is informed thereof

and transmits a request signal to said default server by way of said respective transceiver and a default virtual local area network that corresponds to one of said virtual local area networks (Kasal – Fig.1; Paragraph 0032, 0042; Medina - Col 4: lines 48-51; Col 1: lines 29-31 teaches a switch determining how, when and through which port packets are retransmitted. Col 2: lines 33-35, 41-45; Dravida - transmitter/receiver 604 – Fig.10; Fig.3, Col 4: lines 6-20, Col 6: lines 33-42, Col 10: lines 15-31, 44-55 teaches a network element the NIU 119 - Fig.3 that passes downstream and upstream traffic. The NIU contains a switch 608-Fig.10 and a transmitter/receiver 604-Fig.10 {transceiver}. It is also connected to default video server 138-Fig.3 and headend 10-Fig.3).

Kasal, Medina, and Dravida do not explicitly teach the memory is non-volatile memory;

said control section receiving a power-on signal from one of said television broadcast content receiving terminals.

In an analogous art Suzuki teaches, the memory is non-volatile memory (Col 6: line 67 – Col 7: lines 9 teaches MAC addresses of all nodes associated with VLANs are stored in nonvolatile memory);

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, and Dravida to include non-volatile memory, as taught by Suzuki, for the advantage of storing data permanently so data will not be lost when power is or cannot be supplied.

Kasal, Medina, Dravida, and Suziki do not explicitly teach said control section receiving a power-on signal from one of said television broadcast content receiving terminals.

In analogous art, Ekstrom teaches a control section receiving a power-on signal from one of content receiving terminals (Abstract; P.8: lines 26-31, P.9: lines 1-13).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, Dravida, and Suzuki to include a control section receiving a power-on signal from one of content receiving terminals, as taught by Ekstrom, for the advantage of automatically notifying the switch of an active device, in order for it to immediately register the user device into the network for use.

Kasal, Medina, Dravida, Suzuki, Ekstrom, do not explicitly teach wherein the request signal is transmitting a switching request signal.

In analogous art, Johansson teaches transmitting a switching request signal (Col 4: lines 6-10, 58-60 teaches a plurality of services such as external cable television network B11 – Fig.2, and internal television network F11 – Fig.2. Col 7: lines 11-32 teaches sending a switching request and reconfiguration of VLAN allocation to a user based on the type of service specified to be used by the user. Although the example is between telephony and cable television network B11 services, the example is non-restrictive and can also include the

case where the two services are both internal and external cable television network services).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, Dravida, Suzuki, Ekstrom to include a transmitting a switching request signal, as taught by Johansson, for the advantage of notifying the service of the user's choice selections, allowing the system to automatically readjust/reallocate desired services to the user device.

6. **Claims 5, 6, 13, and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasal et al. (US 2003/0009542), in view of Medina et al. (US 6,975,581), in view of Dravida et al. (US 7,146,630), and further in view of Ekstrom (WO 98/44684).

Consider **claim 5**, Kasal, Medina, and Dravida teach, wherein said correspondence storing section comprises a volatile memory (Medina - Col 4: lines 57-60, Col 5: lines 44-46 teaches address table 12 – Fig.1, 4 is implemented as a hash table that is typically implemented in DRAM {volatile memory}),

television broadcast content receiving terminals (Kasal - 110, 115 – Fig.1) and allocating one of said virtual local area networks by referring to said menu of said television broadcast contents generated from said default server (Kasal – Paragraph 0032, 0039, 0070), but do not explicitly teach said control section

receiving a power-on signal from one of said television broadcast content receiving terminals.

Kasal, Medina, and Dravida do not explicitly teach a control section receiving a power-on signal from one of content receiving terminals.

In analogous art, Ekstrom teaches a control section receiving a power-on signal from one of content receiving terminals (Abstract; P.8: lines 26-31, P.9: lines 1-13).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, and Dravida to include a control section receiving a power-on signal from one of content receiving terminals, as taught by Ekstrom, for the advantage of automatically notifying the switch of an active device, in order for it to immediately register the user device into the network for use.

Consider **claim 13,** Kasal, Medina, Dravida teach, wherein said correspondence storing section comprises a volatile memory (Medina - Col 4: lines 57-60, Col 5: lines 44-46 teaches address table 12 – Fig.1, 4 is implemented as a hash table that is typically implemented in DRAM {volatile memory}),

television broadcast content receiving terminals (Kasal - 110, 115 – Fig.1) and reading one of said virtual local area networks by referring to said menu of

said television broadcast contents generated from said default server (Kasal – Paragraph 0032, 0039, 0070), determining whether said read one of said virtual local area networks is chargeable (Kasal - Paragraph 0038; Paragraph 0032) or free, carrying out an authentication when said read one of said virtual local area networks is chargeable (Kasal - Paragraph 0050 teaches content that may be requested, accessed, and paid for by the viewer. Paragraph 0057 teaches virtual LANs that allow only authorized devices to receive media streams. *Therefore, authentication is performed in order for the selected content to be transmitted and received by the viewer*), and allocating said read one of said virtual local area networks when said read one of said virtual local area networks is free or when said authentication is permitted (Kasal - Paragraph 0032 and 0057 teaches virtual LANs that allow only authorized devices to receive media streams), but do not explicitly teach said control section receiving a power-on signal from one of said television broadcast content receiving terminals.

In analogous art, Ekstrom teaches a control section receiving a power-on signal from one of content receiving terminals (Abstract; P.8: lines 26-31, P.9: lines 1-13).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, and Dravida to include a control section receiving a power-on signal from one of content receiving terminals, as taught by Ekstrom, for the advantage of automatically notifying the switch of an

active device, in order for it to immediately register the user device into the network for use.

Consider **claims 6 and 14**, Kasal, Medina, Dravida, and Ekstrom teach, wherein said control section registers said allocated one of said virtual local area networks in said correspondence storing section by referring to the physical address of said one of said television broadcast content receiving terminals (Kasal - 110, 115 – Fig.1, and Paragraph 0031 teaches television broadcast receiving terminals. Medina - Col 4: lines 48-51; Col 1: lines 39-44 teaches communication between nodes in the same VLAN. Col 1: lines 61-64 teaches VLANs registered to a particular MAC address of a user device).

7. **Claims 7, 8, 15, 16, and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasal et al. (US 2003/0009542), in view of Medina et al. (US 6,975,581), in view of Dravida et al. (US 7,146,630), and further in view of Johansson et al. (US 6,873,624).

Consider **claim 7**, Kasal, Medina, and Dravida teach, television broadcast content receiving terminals (Kasal - 110, 115 – Fig.1) and allocates one of said virtual local area networks by referring to said menu of said television broadcast contents generated from said default server (Kasal – Paragraph 0032, 0039, 0070), but do not explicitly teach wherein said control section receives a channel

switching request signal from one of said television broadcast content receiving terminals.

In analogous art, Johansson teaches a control section receives a channel switching request signal from one of content receiving terminals (Col 4: lines 6-10, 58-60 teaches a plurality of services such as external cable television network B11 – Fig.2, and internal television network F11 – Fig.2. Col 7: lines 20-32 teaches reconfiguration of VLAN allocation to a user based on the type of service specified to be used by the user. Although the example is between telephony and cable television network B11 services, the example is non-restrictive and can also include the case where the two services are both internal and external cable television network services).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, and Dravida to include a control section receives a channel switching request signal from one of content receiving terminals, as taught by Johansson, for the advantage of notifying the switch of the user's choice selections, allowing it to automatically readjust/reallocate desired services to the user device.

Consider **claim 15,** Kasal, Medina, and Dravida teach television broadcast content receiving terminals (Kasal - 110, 115 – Fig.1) and reads one of said virtual local area networks by referring to said menu of said television broadcast

contents generated from said default server (Kasal – Paragraph 0032, 0039, 0070), determines whether said read one of said virtual local area networks is chargeable (Kasal - Paragraph 0038; Paragraph 0032) or free, carries out an authentication when said read one of said virtual local area networks is chargeable (Kasal - Paragraph 0050 teaches content that may be requested, accessed, and paid for by the viewer. Paragraph 0057 teaches virtual LANs that allow only authorized devices to receive media streams. *Therefore, authentication is performed in order for the selected content to be transmitted and received by the viewer*), and allocates said read one of said virtual local area networks when said read one of said virtual local area networks is free or when said authentication is permitted (Kasal - Paragraph 0032 and 0057 teaches virtual LANs that allow only authorized devices to receive media streams), but do not explicitly teach wherein said control section receives a channel switching request signal from one of said television broadcast content receiving terminals.

In analogous art, Johansson teaches a control section receives a channel switching request signal from one of content receiving terminals (Col 4: lines 6-10, 58-60 teaches a plurality of services such as external cable television network B11 – Fig.2, and internal television network F11 – Fig.2. Col 7: lines 20-32 teaches reconfiguration of VLAN allocation to a user based on the type of service specified to be used by the user. Although the example is between telephony and cable television network B11 services, the example is non-

restrictive and can also include the case where the two services are both internal and external cable television network services).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, and Dravida to include a control section receives a channel switching request signal from one of content receiving terminals, as taught by Johansson, for the advantage of notifying the switch of the user's choice selections, allowing it to automatically readjust/reallocate desired services to the user device.

Consider **claims 8 and 16**, Kasal, Medina, Dravida, and Johansson teach, wherein said control section registers said allocated one of said virtual local area networks in said correspondence storing section by referring to the physical address of said one of said television broadcast content receiving terminals (Kasal - 110, 115 – Fig.1, and Paragraph 0031 teaches television broadcast receiving terminals. Medina - Col 4: lines 48-51; Col 1: lines 39-44 teaches communication between nodes in the same VLAN. Col 1: lines 61-64 teaches VLANs registered to a particular MAC address of a user device).

Consider **claim 18,** Kasal, Medina, and Dravida do not explicitly teach wherein a fixed Internet protocol address is given to said system.

In an analogous art Johansson teaches, a fixed Internet protocol address is given to said system (Col 7: lines 37-42 and Col 8: lines 43-49 teaches fixed IP addresses given to VLANs of the system).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, and Dravida to include a fixed Internet protocol address is given to said system, as taught by Johansson, for the advantage of providing respective services fixated to a known internet protocol address, allowing for better structuring and switching of services.

8. **Claims 9 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasal et al. (US 2003/0009542), in view of Medina et al. (US 6,975,581), in view of Dravida et al. (US 7,146,630), in view of Oosterhout et al. (US 6,405,371).

Consider **claim 9,** Kasal teaches a default server (database server within the server farm 132 – Fig.1; Paragraph 0039, 0070), receives said television broadcast contents from said television broadcast content distributing servers to generate said menu of said television broadcast contents (Paragraph 0039 teaches receiving and storing indexed multimedia content to generate custom screens/menus containing available selections), but does not teach cyclically receiving said television broadcast contents and generating said menu by reducing images thereof.

In an analogous art, Oosterhout teaches cyclically receiving television broadcast contents on a compressed-data basis, and time-expands the cyclically

received television broadcast contents to generate said menu of said television broadcast contents by reducing images thereof (Fig.2; Col 2: lines 46-67 teaches receiving digitally encoded {compressed-data basis} television broadcast contents and a receiver demodulating/demultiplexing {time-expands} the received signal which generates a mosaic of images like those shown in Fig.2. Col 4: lines 52-61 teaches real-time sub-images {reduced images}. *Therefore it is inherent that the broadcast contents must be cyclically received in order to generate real-time sub-images of the television broadcast content*).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, and Dravida to include cyclically receiving television broadcast contents on a compressed-data basis, and time-expands the cyclically received television broadcast contents to generate said menu of said television broadcast contents by reducing images thereof, as taught by Oosterhout, for the advantage of efficiently utilizing broadcasting bandwidth while presenting to the user a more friendly visual representation of selectable viewing content, allowing them to quickly scan the content for ones they desire to view, without consuming a considerable amount of system resources.

Conisder **claim 10,** Kasal teaches a default server (database server within the server farm 132 – Fig.1; Paragraph 0039, 0070), receives said television broadcast contents from said television broadcast content distributing servers to generate said menu of said television broadcast contents (Paragraph 0039

teaches receiving and storing indexed multimedia content to generate custom screens/menus containing available selections), but does not explicitly teach time-divisionally receiving said television broadcast on a compressed-data basis, and time-expands the cyclically received television broadcast contents to generate said menu of television broadcast contents by time-divisionally generating said television broadcast contents.

In an analogous art, Oosterhout teaches time-divisionally receiving said television broadcast on a compressed-data basis, and time-expands the cyclically received television broadcast contents to generate said menu of television broadcast contents by time-divisionally generating said television broadcast contents (Fig.2; Col 2: lines 46-67 teaches receiving digitally encoded {compressed-data basis} television broadcast contents and a receiver demodulating/demultiplexing {time-expands} the received signal which generates a mosaic of images like those shown in Fig.2. Col 4: lines 52-61 teaches real-time sub-images {reduced images}. *Therefore it is inherent that the broadcast contents must be cyclically received and time-divisionally reproduced generate real-time sub-images of the television broadcast content*).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, and Dravida to include time-divisionally receiving said television broadcast on a compressed-data basis, and time-expands the cyclically received television broadcast contents to generate said menu of television broadcast contents by time-divisionally generating said

television broadcast contents, as taught by Oosterhout, for the advantage of efficiently utilizing broadcasting bandwidth while presenting to the user a more friendly visual representation of selectable viewing content, allowing them to quickly scan the content for ones they desire to view, without consuming a considerable amount of system resources.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON K. LIN whose telephone number is (571)270-1446. The examiner can normally be reached on Mon-Fri, 9:00AM-6:00PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian T. Pendleton can be reached on (571)272-7527. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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03/22/2008

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